COLORADO
Department of Transportation
Office of the Chief Engineer

United States Environmental Protection Agency, Region 8
NPDES Enforcement Unit
1595 Wynkoop Street
Denver, Colorado 80202-1129
Attn: Mr. Emilio Llamozas
(8ENF-W-NP)

August 24, 2018

Re: EPA Administrative Order for Compliance on Consent; Order #69

Dear Mr. Llamozas:
This submittal serves as documentation of and compliance with Order #69 of the Environmental Protection Agency's Administrative Order for Compliance on Consent (AOC).

Order #69:
By September 1, 2018, CDOT shall update its MS4 Construction Sites Program with the evaluation of the appropriate Design-Build improvement ideas for MS4 compliance and provide a written copy to the EPA and CDPHE. Thereafter, CDOT shall implement the Construction Sites Program to ensure CDOT requires contractors implement the requirements listed in the 2015 permit.

Statement of Fact Regarding Compliance with Order #69:
...By September 1, 2018 CDOT has 1) updated its MS4 Construction Sites Program to comply with AOC Order #69, 2) maintained compliance with its MS4 permit (No. COS000005), and 3) ensured uniformity across current CDOT contracting mechanisms and delivery types. CDOT met these requirements by:

1) CDOT Division of Transportation Development specialists, Innovative Contracting Unit Staff, Executive Management and CDOT's consulting partners met throughout 2018 to consider implementation strategies to ensure MS4 permit compliance for Design-Build projects (Exhibit 1).
2) CDOT published an internal white paper entitled *Design-Build MS4 Permit Integration* (Exhibit 2) evaluating policy and program improvements to drive permit compliance by Design-Build projects.
3) CDOT Division of Transportation Development, Standards and Specifications Unit (SSU) and Project Development Advisory Committee (PDAC) approved a significant revision to Standard Specifications, subsection 208.09 (Failure to Perform Erosion Control) - CDOT's Regulatory Mechanism for its MS4 Construction Sites Program (Exhibit 3). CDOT issued the revision on August 9, 2018. This revision significantly strengthens CDOT's ability to enforce compliance with stormwater requirements on all types of construction projects, including Design-Bid-Build (DBB), Design-Build (DB) and Construction Manager General Contractor (CMGC) projects.
4) CDOT Division of Transportation Development staff and Innovative Contracting Unit Staff established contract language for *Book 2 Section 5.0 Environmental Requirements* 5.4.9 (Exhibit 4) of the draft *CDOT Design-Build Request for Proposals (RFP) Template*.

Section 5.4.9 explicitly requires Design-Build contractors to comply with all aspects of CDOT's Water Quality Specifications without modification (i.e., MS4 Citations/References). This ensures consistent implementation of CDOT Water Quality Specifications across projects and regions, and allows the return of Design-Build projects to compliance using the revision of Standard Specifications, subsection 208.09. CDOT anticipates that further revision to Section 5.4.9 may necessitate moving select language to more applicable sections of the *RFP Template*, however, the overall goal of compliance with all aspects of CDOT's Water Quality Specifications will remain. Although review of the entire contract, including MS4 obligations, is still required by the Colorado Attorney General to ensure the state's legal responsibilities, this will be complete by the next Design-Build project advertisement in 2019 and will incorporate the revised *Design-Build Request for Proposals (RFP) Template* language.

5) The *MS4 Construction Program Manual* is revised to include Standard Operating Procedures for Design-Build projects: *MS4 Construction Program Manual*, Design-Build Chapter (Exhibit 5).

A signed copy of this submittal will be forthcoming in the mail. If you have any questions, comments, or additional requests please contact Jane Hann by email at jane.hann@state.co.us or by phone at 303-757-9630 or Jean Cordova by email at jean.cordova@state.co.us or by phone at 303-512-4053.

Sincerely,

Joshua Laipply
Chief Engineer/Director of Stormwater Compliance

CC: Nathan Moore, CDPHE
Lisa Knerr, CDPHE
Debra Perkins-Smith, CDOT
Jane Hann, CDOT
Jim Ballard, Audit Division, CDOT
Jean Cordova, CDOT
Tripp Minges, CDOT/CDPHE
Matt Malick, CDOT
Stephanie Gibson, FHWA
Stephanie DeJong, EPA
Peggy Livingston, EPA
Harry Morrow, AG
Matthew Pacheco, CDOT

Exhibit 1 - Design-Build Meetings

Design-Build Evaluation and Implementation Meetings	Date
Design-Build Practices Brown Bag to discuss Environmental Considerations for Innovative Contracting	September 28, 2017
Design-Build Visual & Landscape Comment Resolution	May 1, 2018
Design-Build evaluation for AOC with CDOT Environmental Design-Build Sub-committee representative	May 9, 2018
Meet with RESPEC contract partner to discuss Design-Build alternatives	May 29, 2018
Meet with CDOT Chief Engineer to discuss Design-Build alternatives	June 4, 2018
Meet with RESPEC contract partner to refine Design-Build alternatives	June 5, 2018
Meet with CDOT Innovative Contracting lead to discuss how to best integrate alternatives into Design-Build templates	June 14, 2018
Meet with RESPEC contract partner to complete Design-Build alternatives	June 26, 2018
Meet with RESPEC contract partner & CDPHE/CDOT Liaison to assess status of Design-Build alternatives and implement into Design-Build Request for Proposals (RFP) Template 5.4.9	July 10, 2018
Request feedback from Regional Water Pollution Control Managers on Design-Build Request for Proposals (RFP) Template 5.4.9	July 19, 2018
Meet with CDOT Innovative Contracting lead and CDOT Water Quality section lead to refine language in Design-Build Request for Proposals (RFP) Template 5.4.9	July 24, 2018
Strategy session for EPA AOC Design-Build submittal	July 25, 2018
Draft white paper and Design-Build Request for Proposals (RFP) Template 5.4.9 to Innovative Contracting Advisory Committee for review	July 31, 2018
AOC submittal to Environmental Protection Agency	August 24, 2018

Design-Build MS4 Permit Integration

Goals

- Ensure CDOT's compliance with its Municipal Separate Storm Sewer System (MS4) Permit and reduce the Department's anticipated risk as co-permittee under the renewal Colorado Discharge Permit System - Stormwater Construction Permit (CDPS-SCP), especially for CDOT Design-Build projects. The Colorado Department of Public Health and Environment (CDPHE) issued CDOT's MS4 Permit under the authority of the U.S. Environmental Protection Agency and the Clean Water Act.
- Respond to Order #69 in CDOT's MS4 Permit Administrative Order of Compliance on Consent (AOC) with EPA Region 8.
    - *By **July 1, 2018**, CDOT shall **complete an evaluation** of Design-Build improvement ideas for MS4 compliance and include any appropriate compliance improvements in the MS4 Construction Site Program.*
    - *By **September 1, 2018**, CDOT shall **update** its MS4 Construction Sites Program with the evaluation of the appropriate Design-Build improvement ideas for MS4 compliance and **provide** a written copy to the EPA and CDPHE. Thereafter, CDOT shall implement the Construction Sites Program to ensure CDOT requires contractors implement the requirements listed in the 2015 permit.*
- Implement and administer a uniform construction sites water quality program across the state of Colorado for all project delivery types.

Risk Allocation

MS4 Permit (CDPS No. COS000005)

Risk Allocation: CDOT-100%/Operator-0%.

CDOT is exclusively responsible for compliance with its CDPHE-issued MS4 permit. CDOT is responsible for the following MS4 permit requirements, among others, regardless of project delivery method.

a. Control measures shall be selected, designed, installed, implemented and maintained in accordance with good engineering, hydrologic, and pollution control practices, and the manufacturer's specifications, when applicable. "Pollution" is man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. (MS4 Permit, Part I.B.1.)

b. Control measures shall be maintained in effective operating condition. (MS4 Permit, Part I.B.1.)

c. The permittee must implement a program to reduce or prevent the discharge of pollutants to the MS4 from covered construction activities. (MS4 Permit, Part I.E.1)

d. The permittee's Construction Sites Program must address selection, installation, implementation, and maintenance of control measures that meet the requirements of Part I.B. Control measures must be appropriate for the specific construction activity, the applicable pollutant sources, and phase of construction. There are a wide variety of structural and non-structural control measures that can be used at covered construction sites... (MS4 Permit, Part I.E.1.a.iii)

e. The permittee must develop and implement procedures to address modifications to SWMPs [Stormwater Management Plans] including how minor and major modifications are defined and reviewed... (MS4 Permit, Part I.E.1.a.iv.A)
f. The permittee must implement SWMP review for **all** covered construction activities prior to the start of construction activities. (MS4 Permit, Part I.E.1.a.iv.A)
g. CDOT's MS4 permit requires a regulatory mechanism to return construction sites to compliance. Standard Specifications for Road and Bridge Construction, subsection 208.09 fulfills this requirement and CDOT would be in violation of the MS4 permit if the department is unable to enforce 208.09 across different contracting mechanisms.

Active CDPS-SCP (CDPS No. COR300000)

Risk Allocation: CDOT - 0%/Operator - 100%

The operator is exclusively responsible for compliance under the active CDPS-SCP issued by CDPHE.

a. The Operator is "the entity that has day-to-day supervision and control of activities occurring at the construction site. This can be the owner, the developer, the general contractor or the agent of one of these parties, in some circumstances. It is anticipated that at different phases of a construction project, different types of parties may satisfy the definition of 'operator' and that the permit may be transferred as the roles change."
b. The operator is typically the Contractor on Design-Bid-Build and Design-Build projects unless CDOT obtains the permit and neglects to transfer it to the Contractor. Section 208.2.1 of the 2014 CDOT Construction Manual[1] states "CDPHE issues a CDPS-SCP for each project. Depending on the Contract, this permit may be originated by either CDOT, or the Contractor. The Contract specifies which party applies for the permit. If the CDPS-SCP was obtained by CDOT, it will be transferred from the Resident Engineer to the Contractor."

Renewal CDPS-SCP (CDPS No. COR400000)

Risk Allocation: CDOT - Unknown %/Operator - Unknown %

When issued, CDOT and the Contractor will be co-permittees.

a. Co-permittees are the owner and operator named in the discharge certification issued under this [CDPS-SCP] for the construction site specified in the certification. (Draft CDPS-SCP, Part I.E(17)).
b. CDOT will become a co-permittee on ALL active CDPS-SCP construction projects, regardless of project delivery type. As co-permittee, CDOT will assume a yet undefined portion of the CDPS-SCP regulatory risk that is

Precedent:
The Minnesota Pollution Control Agency (MPCA) requires the owner and operator to sign the construction stormwater permit application. MPCA's **Owner Responsibilities under the Construction Stormwater Permit** states "[t]he property owner and the contractor who jointly sign the permit application share liability and any enforcement fines for permit noncompliance and environmental damages."

[1] The CDOT Construction Manual is a separate document from the CDOT MS4 Construction Program Manual. The CDOT Construction Manual is an operational manual that defines the criteria and procedures used by engineering personnel in the administration of construction contracts.

currently all on the Contractor, in addition to 100 percent of MS4 Permit Risk.

c. The draft permit does not allocate risk between co-permittees. It is anticipated that CDOT and the Contractor will share joint and several liability for CDPS-SCP noncompliance and environmental damages.
d. CDOT Standard Specifications for Road and Bridge Construction, Subsection 107.25(d)2 may provide CDOT relief from penalty's as a CDPS-SCP co-permittee.
    i. "The Contractor shall be liable for any penalty (including monetary fines) applied to the Department caused by the Contractor's noncompliance with any water quality permit or certification."

Existing and Ongoing Activities

The MS4 Construction Program Manager (MCPM) is working with the Environmental Policy and Biological Resources Section Manager, the MS4 Construction Program Committee, the Innovative Contracting Program Lead, and the Innovative Contracting Advisory Committee (ICAC) - Environmental Subcommittee to ensure compliance with CDOT's MS4 Permit, and future risk as a CDPS-SCP co-permittee, within a Design-Build contracting mechanism. The following activities are emerging or institutionalized CDOT practices that further environmental compliance and quality during Design-Build projects:

a. CDOT's Innovative Contracting Program has dedicated staff to provide compliance, consistency and process improvements. This includes training and support for upcoming Design-Build projects. The MS4 Construction Program Manager is working with this team to refine opportunities to ensure water quality compliance on Design-Build projects.
b. CDOT updated its Design-Build manual in 2016, which lays out a consistent process on risk allocation, team structure and contract evaluation and selection.
c. CDOT's Environmental Certification Form (#128) ensures that all project plan and specifications are reviewed prior to advertisement and then again prior to construction (in the case of design-build). The review includes SWMP and water quality permit accuracy.
d. The ICAC Environmental Subcommittee is developing a Design-Build RFP template for Book 2, Sections 5 and 17. These templates will promote a consistent approach towards Environmental Management, and Environmental Compliance and Resource Requirements, including compliance with MS4 and stormwater construction permits.
e. The MCPM and the MS4 Construction Program Committee published the *CDOT MS4 Construction Program Manual* on March 1, 2017. The initial chapter was standard operating procedures (SOPs) to ensure MS4 Permit compliance by Design-Bid-Build projects. The SOPs incorporate MS4 permit compliance oversight around existing CDOT processes (e.g., Project Development Advisory Committee [PDAC], Standards and Specifications Unit [SSU] and the Joint CDOT/CCA [Colorado Contractors Association] Specifications Committee, etc.). The Design-Build chapter will expand on the Design-Bid-Build SOPs to provide a roadmap for integrating MS4 Permit compliance into the Design-Build process.
f. CDOT's Project Development Advisory Committee (PDAC) and the joint CDOT/CCA (Colorado Contractors Association) Specification Committee approved the revision to subsection 208.09, CDOT's MS4 Permit-mandated regulatory mechanism for its Construction Program. The revised 208.09 strengthens CDOT's ability to return all CDPS-SCP projects to compliance with

MS4 Permit requirements through clearly defined corrective action periods and assessment of Liquidated Damages and Stop Work Orders when Contractors exceed the allowed corrective action periods. The corrective action periods differ among Regular, Chronic, Severe and Recalcitrant Findings.

g. CDOT researched and published the Office of Major Project Development (OMPD) Environmental Best Practices for Alternative Delivery in April 2016. Some of the recommended best practices under consideration to ensure compliance with stormwater requirements are:
    i. Conduct risk assessment workshops focused on environmental factors during development of the request for proposal.
    ii. Require that proposers provide environmental compliance training for their staff.
    iii. Use environmental performance evaluation criteria in scoring Contractor proposals.
    iv. Require dedicated and qualified environmental managers as Key Project Personnel for the duration of the contract.
    v. Include a template for the Environmental Compliance Manual.
    vi. Require CDOT to lead all environmental resource agency communications during the construction phase.
    vii. Require qualified environmental personnel to be involved in regular construction phase coordination.
    viii. Perform comprehensive project close-out procedures, including environmental operations and maintenance (O&M) checklists.

Potential Design-Build Process Improvements

The MCPM is coordinating activities with CDOT stakeholders to identify Design-Build improvements with a strong likelihood of success. The following recommended improvements to CDOT Design-Build projects will help CDOT avoid non-compliance with its MS4 Permit and liability as a co-permittee under the renewal CDPS-SCP. The recommendations build on existing *CDOT MS4 Construction Program Manual* SOPs (developed under the Chief Engineer's direction and by the CDOT MS4 Construction Program Committee) and established CDOT processes. CDOT will consider these concepts and their feasibility in the coming months, in an effort to understand if they can achieve the goals stated above.

Project Design Phase

1. The Design-Build Contract (Contract) will incorporate the current Sections 208, 213, 216 and subsection 107.25, and M&S Standard Plans M-208-1 and M-216-1 (collectively CDOT's Water Quality Control Specifications) without modification.
    a. Water Quality Control Specifications must be included in the Contract so CDOT can enforce its MS4 Construction Program Regulatory Mechanism (subsection 208.09) and maintain compliance with CDOT's MS4 Permit.
2. The Contract must clearly assign responsibility for each CDPS-SCP requirement to avoid disagreements over responsibility for non-compliance.
3. CDOT will incorporate longer review and acceptance timelines, such as 14 calendar days instead of 7, into Design-Build contracts.

Project Procurement Phase

1. The Design-Build Project Request for Proposal (RFP) will require all Prime Contractors to self-report their compliance history with regards to the CDPS-SCP.

    CDOT identifies "Use environmental performance evaluation criteria in scoring Contractor proposals" as a potential best practice for alternative project delivery

methods (CDOT Office of Major Project Development (OPMD) Environmental Best Practices for Alternative Delivery, April 2016). "This should include qualifications of environmental personnel, proposed schedules, demonstrated sensitivity to environmental issues, compliance with environmental requirements, and past performance relative to resolution of environmental issues. As the project owners, CDOT is ultimately responsible for environmental compliance. Therefore, it is critical that the contractor's environmental staff have the knowledge to recognize environmental issues in the field and the confidence to report non-compliant events."

CDPS-SCP Permitting Phase

1. A CDOT-certified SWMP Preparer (*CDOT MS4 Construction Program Manual*, SOP D5) will develop the Design-Build Project's SWMP using CDOT's SWMP template and tabs. The SWMP will incorporate M-208-1, M-216-1 and non-structural control measures in CDOT's Water Quality Control Specifications. CDOT must accept proposed modifications to these control measures prior to use in a project SWMP (*CDOT MS4 Construction Program Manual*, SOP D3).
2. The Project's SWMP must be reviewed by a CDOT-certified SWMP Reviewer (*CDOT MS4 Construction Program Manual*, SOP D5) before the Contractor submits the CDPS-SCP application to CDPHE. The CDPS-SCP must be issued before construction commences.
    a. The Project's SWMP must be complete when the CDPS-SCP application is submitted to the Division. The nature of the Design-Build delivery system is such that the project may not be 100 percent designed when the CDPS-SCP application is submitted to the Division, thus Design-Build projects will be out of compliance with CDPS, Part I.A.4.a, unless either:
        i. The Contractor submits the CDPS-SCP application for the portion(s) of the project for which the SWMP is complete. The Contractor amends the CDPS-SCP when the SWMP is complete for the next phase of the project.
        ii. Or, the Contractor pulls a new CDPS-SCP for each portion/phase of the project, when the SWMP is complete. In this case, a project may have more than one SWMP notebook.

Construction Phase

1. During active construction, the Project's SWMP must be reviewed by a CDOT-certified SWMP Reviewer when the Contractor proposes a Major Modification to the SWMP, opens new ground, amends the CDPS-SCP, or applies for a new CDPS-SCP (*see CDOT MS4 Construction Program Manual*, SOP C1, Major SWMP Modification During Construction) or implement other major modifications to the SWMP. *CDOT MS4 Construction Program Manual*, SOP C1 defines Major Modifications as:
    a. Major substitutions or eliminations of control measures.
    b. Additional environmental impacts not defined in last reviewed SWMP.
    c. Significant increases to the limits of disturbance.
    d. Expansion of the construction site boundary.
2. CDOT will conduct MS4 oversight inspections of Design-Build projects at least once every 45 days during active construction (*CDOT MS4 Construction Program Manual*, SOP C2). CDOT will address Findings with CDOT Standard Specifications for Road and Bridge Construction, subsection 208.09.

COLORADO
Department of Transportation
Division of Project Support

Standards and Specifications Unit

MEMORANDUM

DATE: August 9, 2018

TO: All Holders of Standard Special Provisions

FROM: Shawn Yu, Standards and Specifications Engineer

SUBJECT: Revision of Section 208 - Erosion Control

Effective this date, our unit is issuing a new standard special provision, "Revision of Section 208 - Erosion Control". This new standard special provision is 4 pages long.

Please use this new standard special provision in all projects that have Regulatory Mechanism for Water Quality, beginning with projects advertised on or after August 16, 2018. Please use a revision under ad to incorporate this standard special provision into projects already advertised. Instructions on use of this standard special provision on projects already under contract will soon be provided.

This new standard special provision replaced all of Subsection 208.09.

For those of you who keep a book of Standard Special Provisions, please add this new standard special provision to your file. For your convenience, you can find this and other specifications in one place at our Construction Specifications web page:

https://www.codot.gov/business/designsupport/cdot-construction-specifications/2017-construction-standard-specs or you may click on the Recently Issued Special Provisions link.

If you have any questions or comments, please contact this office.

August 9, 2018

2
REVISION OF SECTION 208
EROSION CONTROL

NOTICE

This is a standard special provision that revises or modifies CDOT's *Standard Specifications for Road and Bridge Construction*. It has gone through a formal review and approval process and has been issued by CDOT's Project Development Branch with formal instructions for its use on CDOT construction projects. It is to be used as written without change. Do not use modified versions of this special provision on CDOT construction projects, and do not use this special provision on CDOT projects in a manner other than that specified in the instructions unless such use is first approved by CDOT's Standards and Specifications Unit. The instructions for use on CDOT construction projects appear below.

Other agencies which use the *Standard Specifications for Road and Bridge Construction* to administer construction projects may use this special provision as appropriate and at their own risk.

Instructions for use on CDOT construction projects:

Use in projects that have Regulatory Mechanism for Water Quality.

August 9, 2018

3
REVISION OF SECTION 208
EROSION CONTROL

Section 208 of the Standard Specification is hereby revised for this project as follows:

Delete subsection 208.09 and replace with the following:

208.09 Regulatory Mechanism for Water Quality. The Department will identify and document Findings not in compliance with the Water Quality Specifications, as specified in subsection 208.09(a)7, during Headquarter and Region water quality control inspections or observation by the Engineer. The Engineer will immediately notify the Contractor of these findings by issuing Form 105, which will be tracked in ESCAN/CARL software. Failure by the Contractor to clarify a finding location with the Engineer shall not interrupt the timelines noted in 208.09(b).

Timelines noted in subsection 208.09(b) do not indemnify the Contractor from failing to comply with Colorado Discharge Permit System Stormwater Construction Permit (CDPS-SCP) timelines for corrective actions. The CDPS-SCP (Part I.D.8) states corrective actions "...must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants."

(a) *Definitions.*

1. Compliance Assistance. A low risk event as determined by the Region Water Pollution Control Manager (RWPCM). Compliance assistance events are not considered Findings and not subject to the Regulatory Mechanism noted in subsection 208.09(b).

2. Deferment. A request from the Contractor to the Engineer to delay implementation of corrective actions for Regular Findings pertaining to Water Quality Specifications. Deferments may only be granted due to extraordinary circumstances. However, it is at the Department's discretion to approve or reject these requests.

3. Finding. An incident discovered through inspection by the Department or by Engineer observation, which is noncompliant with the Water Quality Specifications. A Finding will be classified as one of the following:

   A. Regular Finding. A situation upon inspection that is in noncompliance with the Water Quality Specifications.

   B. Severe Finding. A discharge outside the project's Limits of Construction (LOC), subsection 107.25(a)2, to State waters or to a live inlet where the pollutant cannot be reclaimed.

   C. Chronic Finding. A Chronic Finding is assessed when the same Regular Finding at the same location is documented twice in the last three Headquarter or Region water quality control inspections. Engineer observed findings outside these inspections will not apply.

4. Inspection Form 105. The Form 105 issued by the Engineer documenting findings from a Headquarter or Region led water quality inspection (subsection 208.03(c)2(3)(i and ii)).

5. Location. The place where the finding was observed; can be a document (e.g., stormwater management plan [SWMP]) or physical location. A physical location must be described with enough detail to guide an independent party to the spot of the finding. Physical locations must be supported with at least one photograph.

6. Recalcitrance. Contractor has shown willful negligence or misrepresentation or unwillingness to adhere to the Water Quality Specifications.

7. Water Quality Specifications. Subsection 107.25, Sections 208, 213 and 216, and Standard Plans M-208-1 and M-216-1.

(b) *Liquidated Damages and Stop Work Orders.* The Contractor will be subject to Liquidated Damages for incidents of failure to comply with the Water Quality Specifications and implement corrective actions to resolve noncompliance in the time frame established in subsection 208.09(b and c). Liquidated damages will not be considered a penalty but will be assessed to recover costs associated with environmental damages, and engineering and administrative expenses incurred by the Department for the Contractor's failure to comply with the Water Quality Specifications. Liquidated damages will accumulate for each finding, for each cumulative day that the finding remains uncorrected. Liquidated damages associated with incidents pertaining to this subsection do not indemnify the Contractor of other Liquidated Damages associated with this project.

In addition to Liquidated Damages, the Contractor will be subject to a project-wide Stop Work Order for recalcitrance and the Engineer may issue a Stop Work Order for Chronic and Severe Findings in accordance with subsection 105.01.

Findings are closed when the corrective action is complete, reported to ESCAN and accepted by the Department. The Department will notify the Contractor through ESCAN when the corrective action is accepted or denied. Liquidated damages will be assessed by the type of finding as follows and will continue until the corrective action is approved by the Department.

1. Regular Finding. The time required to repair a Regular Finding shall begin at 11:59 PM on the date the Inspection Form 105 is issued. The Contractor shall have no more than a 7 calendar day grace period to correct the Regular Finding before Liquidated Damages are assessed. The grace period extends until 11:59 PM on the 7th calendar day after the Inspection Form 105 was issued.

   The Engineer will issue a Form 105 notifying the Contractor that Liquidated Damages are accruing at $1,500 per day for each full or partial calendar day a Regular Finding remains uncorrected after the 7-calendar day grace period. At 11:59 PM on the 14th calendar day, each uncorrected, undeferred Regular Finding will be assessed as recalcitrant and the Engineer will issue a project-wide stop work order. The Contractor shall fix each recalcitrant finding and submit a plan to avoid future instances of each recalcitrance to the Department for approval. The recalcitrance plan shall be in writing, signed by the Superintendent and shall include:

   (1) Each Recalcitrant Finding,
   (2) Why the corrective action for each Recalcitrant Finding was not implemented within 14 calendar days, and
   (3) How the Contractor will avoid future recalcitrance.

   The Department will discuss the recalcitrance plan and may meet with the Superintendent to recommend modifications, if needed. The Engineer will issue a Form 105 accepting or rejecting the recalcitrance plan within 24 hours of the Contractor submitting a plan or resubmitting a modified plan.

The Contractor will neither be reimbursed for costs incurred to fix each Recalcitrant Finding pertaining to a control measure in the SWMP plan nor costs to prepare the recalcitrance plan. The Contractor shall propose additional control measures, if needed, according to subsection 208.04(a). The project-wide Stop Work Order and Liquidated Damages will be assessed until approval of the corrective action for each Recalcitrant Finding and approval of the Contractor's recalcitrance plan by the Department is given. After written approval by the Engineer, the project-wide Stop Work Order will be lifted and accrual of Liquidated Damages will cease.

2. Severe Finding. In response to a Severe Finding, the Engineer will issue Inspection Form 105 and immediately assess Liquidated Damages of $3,500 per Severe Finding. Severe Findings shall not be eligible for the 7 calendar day grace period (subsection 208.09(b)1). Liquidated damages will accrue at $3,500 per Severe Finding per calendar day beginning at 11:59 PM of day the Inspection Form 105 is issued.

   A. If the Severe Finding is a discharge to State waters, the Contractor shall prevent any further discharge and shall reclaim discharge which has not yet entered State waters. The Contractor shall report the discharge to CDPHE in accordance with CDPS-SCP requirements.

   B. If the Severe Finding is a discharge outside the LOC that does not enter State waters, the Contractor shall fully reclaim the discharge before it enters State waters and implement relevant CDPS-SCP noncompliance notification procedures.

   The Engineer may require the Contractor to submit a plan for permanent stabilization of disturbed areas outside the LOC per 208.04(e)4 for approval. Permanent stabilization plans pertaining to Severe Findings and subsequent stabilization activities are not subject to 208.09(b).

   The Contractor shall not be reimbursed for activities undertaken to reclaim the discharge, stabilize areas outside the LOC and implement relevant CDPS-SCP noncompliance notification procedures.

3. Chronic Finding. In response to a Chronic Finding, the Engineer will issue Inspection Form 105 and immediately assess Liquidated Damages of $1,500 per Chronic Finding. Chronic Findings shall not be eligible for the 7 calendar day grace period (subsection 208.09(b)1). Liquidated damages will accrue at $1,500 per Chronic Finding per calendar day beginning at 11:59 PM of day the Inspection Form 105 is issued.
   When the Chronic Finding is comprised of two Severe Findings, the Department will assess Liquidated Damages in accordance with subsections 208.09(b)2 and 208.09(b)3.

(c) *Deferment*: If the Contractor seeks deferment, the Superintendent shall submit a deferment request to the Engineer by 11:59 PM of the day after the issuance of Inspection Form 105. Chronic and Severe Findings are not eligible for deferment. The deferment request shall be in writing, signed by the Superintendent and shall include:

(1) Regular Findings to be deferred

(2) The reasons why the Findings cannot be corrected in 7 calendar days

(3) An action plan containing:

(i) Methodology to protect water quality until each deferred Finding is corrected and accepted

(ii) Milestones to measure progress toward completion

(iii) Additional control measures to be implemented until each deferred Finding is corrected and accepted

(iv) Corrective completion dates for each Finding

The Department will discuss the deferment request and may meet with the Superintendent to recommend modifications to the action plan. The Engineer will issue a Form 105 accepting or rejecting the deferment request by 11:59 PM of the third calendar day after the Inspection Form 105 documenting the Regular Finding is issued. The Department will not accept a deferment for operational error, lack of resources, improperly installed control measures, inadequate control measures, lack of preventative maintenance, careless or improper operation, or other non-proactive reason.

Preparation of deferment documentation and additional materials, including additional control measures, required to complete the action plan shall be at the Contractor's expense. Time frames noted in subsection 208.09(b)1 will not be stopped during the deferment review period, therefore, Liquidated Damages will be assessed beginning 11:59 PM on calendar day 7 if the deferment request is rejected and, furthermore, a rejected deferment plan (subsection 208.09(c)) shall not absolve the Contractor from recalcitrance.

The Engineer will assess Liquidated Damages in the amount of $1,500 per calendar day, and partial day, for each uncorrected Deferred Finding. These Liquidated Damages will start on the date the uncorrected work was deferred to be completed (subsection 208.09(c)(3)(iv). In addition, Liquidated Damages of $1,500 per calendar day will be assessed retroactively to 11:59 PM of the day the finding was originally noted on the Inspection Form 105.

(d) *Conflict Resolution.* Subsections 105.22, 105.23, and 105.24 detail the process through which the parties (CDOT and the Contractor) agree to resolve any issue that may result in a dispute.

(e) *Exemptions.* The Engineer will exempt from subsection 208.09(b) situations of Compliance Assistance, Documented Upset Conditions, Documented Reportable Spills and Documented Winter Exemptions. Release from subsection 208.09(b) does not exempt the Contractor from compliance with CDPS-SCP, Part I.D.8.

1. Documented Upset Condition. The Contractor shall report, both verbally and in writing, the Upset Condition to CDPHE per CDPS-SCP Part II.A.6 and subsection 208.03(c)2(5)(iv) and provide written documentation to the Engineer. The Engineer will issue a Form 105 and recognize the exemption to the Regulatory Mechanism. The Contractor shall also update the SWMP notebook with the Form 105 and the documented Upset Condition.

2. Documented Reportable Spills. The Contractor shall report, both verbally and in writing, the Reportable Spill to CDPHE per subsection 107.25(b)16 and provide written documentation to the Engineer. The Engineer will issue a Form 105 and recognize the exemption to the Regulatory Mechanism. The Contractor shall also update the SWMP notebook with the Form 105 and the documented Reportable Spill.

3. Winter Exemptions. The Contractor is unable to address findings noted on the Region or Headquarter led water quality control inspection due to:

   (1) snow covers the entire site for an extended period and;

   (2) no construction activity and;

   (3) melting conditions posing a risk of surface erosion do not exist.

   The Contractor shall request a Winter Exemption to the Department. If approved, the Engineer will issue a Form 105 and recognize the exemption to subsection 208.09(b). The Contractor shall also

update the SWMP notebook with the Form 105 and the documented Winter Exemption. Liquidated Damages, if assessed, will only accrue up to the point where the Winter Exemptions are approved.

4. Compliance assistance during Region or Headquarter led water quality control inspections. The RWPCM will record compliance assistance in ESCAN/CARL software.

SECTIONS IN RED TEXT ARE OPTIONAL AND MAY NOT BE APPLICABLE TO ALL PROJECTS

5.0 ENVIRONMENTAL REQUIREMENTS

5.4.9 Water Quality

5.4.9.1 Requirements

To prevent or minimize erosion, sedimentation and pollution of any State waters the Contractor shall comply with all aspects of:

1) The active Colorado Discharge Permit System - Stormwater Construction Permit (CDPS-SCP) issued by the Colorado Department of Public Health and Environment (CDPHE)
2) CDOT's Water Quality Specifications *Standard Specifications for Road and Bridge Construction* subsection 107.25 and Sections 208, 213 and 216, without modification (current version) (except for payment and measurement)
3) CDOT M&S Plans M-208-1 and M-216-1
4) Other applicable local, State or Federal permits or regulatory requirements

The Contractor shall comply with the following additional requirements.

- The Contractor shall have a CDOT-certified Stormwater Management Plan (SWMP) Preparer design the project's complete SWMP as per *MS4 Construction Program Manual*, Standard Operating Procedure [SOP] D5: SWMP Design and Review. (MS4 Permit, Part I.E.1.a.iv(A))
- A CDOT-certified SWMP Reviewer will evaluate the project SWMP for conformance with CDOT's Water Quality Specifications and regulatory requirements before the Contractor submits the SCP application to the Colorado Department of Public Health and Environment (CDPHE) as per *MS4 Construction Program Manual*, SOP D5: SWMP Design and Review. (MS4 Permit, Part I.E.1.a.iv(B))
- If Project is within Cherry Creek Basin: Projects fully or partially located in the Cherry Creek Basin will follow the additional SWMP review steps set forth in *MS4 Construction Program Manual*, SOP D6 (Cherry Creek Basin). (MS4 Permit, Part I.E.1.a.viii)
- The Contractor shall hold the CDPS-SCP until CDOT warrants transfer or deactivation.
- The Contractor shall notify CDOT for inspection of Initial Control Measure installation for conformance with the project's SWMP and CDOT's Water Quality Specifications. The Contractor shall not open ground until the Initial Control Measure installation inspection has occurred and the Region Water Pollution Control Manager (RWPCM) has confirmed the installation conforms to the project SWMP and CDOT's Water Quality Specifications.
- Each TECS [Transportation Erosion Control Supervisor]-certified Erosion Control Inspector (ECI) will inspect no more than 40 acres of active project area. Additional TECS-certified ECI staff are required for each additional 40 acres of active project area.
- During active construction, the Project's SWMP must be evaluated for conformance with CDOT's Water Quality Specifications and regulatory requirements by a CDOT-certified SWMP Reviewer before the Contractor shall be allowed to open new ground, amend the SCP, apply for a new SCP or implement other major modifications to the

SWMP identified in *MS4 Construction Program Manual*, SOP C1 (SWMP Design Modifications During Construction). (MS4 Permit, Part I.E.1.a.iv(A))

- During active construction, a CDOT Project Engineer will evaluate minor modifications to the Project's SWMP for conformance with CDOT's Water Quality Specifications and regulatory requirements prior to issuance of a Form 105 as per *MS4 Construction Program Manual*, SOP C1: SWMP Design Modifications During Construction. (MS4 Permit, Part I.E.1.a.iv(A))
- The Contractor shall complete an After Action Review (AAR) after every reportable non-compliance, as defined in the CDPS-SCP. The AAR will identify control measure and SWMP failures and how and when these will be resolved. The Contractor shall submit each AAR to the CDOT Project Engineer and file a copy in the SWMP notebook.
- A summary of all water quality protection activities that have occurred during the reporting period shall be included in Environmental Compliance Status reports as outlined in Section 5.3.2.
- The Contractor shall inform the CDOT Project Engineer and, if necessary, the RWPCM of all water quality and erosion control-related communication with local, state and federal regulatory agencies. (MS4 Permit, Part I.A.5)

Refer to subsection 5.4.10 for Waters of the U.S. requirements, Section 12 for drainage and permanent water quality requirements, and Section 17 for landscape stabilization and warranty requirements.

5.4.9.2. Permits

The Contractor shall obtain all applicable permits and/or notices to regulatory agencies, including but not limited to:

- CDPS-SCP (replace with USEPA-issued Stormwater Construction Permit [EPA SCP] if the project occurs on tribal lands or a federal facility)
- CDPHE Construction Dewatering Discharges Permit or Remediation Activities Discharging to Ground or Surface Water or individual construction dewatering permit (if contaminated groundwater is expected to be encountered)
- Non-Extractive Industries Storm Water Permit
- Remediation Activities Discharging to Surface Water Permit
- Remediation Activities Discharging to Ground Water Permit
- Local agency permits as required (These may include stormwater permits, grading permits, etc. Check with local agencies that have oversight within the project limits)
- Add project-specific deliverables, as required

5.4.9.3 Deliverables (if applicable)

- *Stormwater Management Plan (SWMP)* (MS4 Permit, Part I.E.1.a.iv)
- *Independent Quality Assurance Program Monthly SWMP Notebook Audits*
- *Substitute Water Supply Plan (SWSP) (if consumptive use)*
- *Remediation Activities Action Plan (if Contractor obtains a Remediation Activities Discharging to Ground or Surface Water Permit)*
- *Add Project-specific deliverables, as required*

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1.0 DESIGN SOPs

Design-Build Projects will adhere to these SOPs, as written in the Design-bid-build chapter.

1. Updating CDOT's MS4 Citations and MS4 Construction Program Documents (Standard Operating Procedure D1)
2. Control Measures for SWMP Design (Standard Operating Procedure D3)
3. Updating SWMP Templates, Site Map Standards and SWMP Tabs (Standard Operating Procedure D4)
4. Cherry Creek Basin (Standard Operating Procedure D6)

CDOT modified two Design SOPs for Design-Build projects.

1. Project Special Provisions and Details (Standard Operating Procedure D2). CDOT's Standards and Specifications Unit (SSU) and the MS4 Construction Program Manager (MCPM) must review and accept all proposed modifications to the CDOT Water Quality Specification before incorporation into project documents.
2. Project SWMP Design and Review (Standard Operating Procedure D5). The Design-Build Contractor prepares the project SWMP. Design-Build SOP D5 requires that CDOT review and approve the Contractor's complete SWMP before the Contractor submits the Colorado Discharge Permit System - Stormwater Construction Permit (CDPS-SCP) application to the Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division (Division).

For Design-Build projects, the Design SOPs are effective beginning with project initiation up to when construction activities commence. Key staff on Design-Build design phase SOPs are **SWMP Preparers, SWMP Reviewers,** the **Standards and Specifications Unit (SSU),** the **Landscape Architecture Section Manager (LASM), MS4 Construction Program Manager (MCPM), Region Water Pollution Control Managers (RWPCMs), Resident Engineers (REs),** and **Region Planning and Environmental Managers (RPEM).**

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D1 (Design-Build)

UPDATING CDOT'S WATER QUALITY SPECIFICATIONS AND MS4 CONSTRUCTION PROGRAM DOCUMENTS (STANDARD OPERATING PROCEDURE D1)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP D1.

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D2 (Design-Build)

PROJECT SPECIAL PROVISIONS AND DETAILS (STANDARD OPERATING PROCEDURE D2)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Proposed modifications to CDOT's Water Quality Specifications may originate from the CDOT Design-Build Project Team, from prospective Design-Build teams during the discovery process before the request for qualifications (RFQ) goes to advertisement, or from the Design-Build Contractor prior to submitting the CDPS-SCP application. This standard operating procedure (SOP) ensures that project-specific changes to CDOT's Water Quality Specifications are compliant with CDOT's MS4 Construction Program and the Colorado Discharge Permit System-Stormwater Construction Permit (CDPS-SCP), and are entered into the ESCAN (when developed) for recording project findings based off of Water Quality Specifications.

Design-Build SOP D2 establishes a statewide uniform approach to ensure that CDOT's Standards and Specifications Unit (SSU) and the MS4 Construction Program Manager (MCPM) review and accept all proposed modifications to the CDOT Water Quality Specifications before incorporation into project documents. CDOT and the Design-Build Contractor follow Design-Build SOP C1 to modify the Water Quality Specifications during active construction.

This SOP is consistent with Section 2.23 of CDOT's *Project Development Manual*. SOP D2 does not modify this established process but adds MS4 Construction Program oversite to evaluate proposed modifications to the CDOT Water Quality Specifications for consistency with the MS4 Construction Program. Specifically, SSU must consult with the MCPM concerning compliance with the MS4 Construction Program and CDPS-SCP and the Landscape Architecture Section Manager (LASM) regarding industry standards and constructability. The MCPM, or designee, enters Water Quality Specification Project Special Provisions into ESCAN, after acceptance by the SSU, to update the list of citations for the Design-Build project.

Instead of using SOP D2 to modify the Water Quality Specifications on a project-by-project basis, the MS4 Construction Program intends that, when possible, SOP D1 (Design-Bid-Build Chapter, SOP D1) is followed to formally modify Water Quality Specifications that are not working in the field or are difficult to audit.

2.0 Regulatory Criteria

- CDOT MS4 Permit (COS000005), Part I.B. Control Measures, page 7
- CDOT MS4 Permit (COS000005), Part I.E.1.a.iii, pages 10-12
- CDOT MS4 Permit (COS000005), Part I.E.1.b.iii., pages 17-18

- CDPS-SCP (COR-030000), Part I.D.2., page 10
- EPA Audit, 2PM
- EPA Audit, 3PM

3.0 MS4 Roles and Responsibilities

Section 3.0 is an overview of MS4 roles and responsibilities for reviewing and approving Water Quality Specification Project Special Provisions. Section 4.0 lists the process and methods.

- **Landscape Architecture Section Manager (LASM)**, or designee, evaluates Water Quality Specification Project Special Provisions for industry standards and constructability.
- **MS4 Construction Program Manager (MCPM)**, or designee, reviews Water Quality Specification Project Special Provisions for compliance with CDPS-SCP and alignment with the MS4 Construction Program, including the Design Criteria. The MCPM, or designee, enters Water Quality Specification Project Special Provisions into ESCAN to update the project's list of citations.
- **Resident Engineer (RE)**, or designee, prepares and delivers Project Special Provisions, including Water Quality Specification Project Special Provisions, to the SSU for review and approval. The RE, or designee, verifies that Project Special Provisions are completed accurately (*CDOT Project Development Manual*, Subsection 2.23.03).
- **Standards and Specifications Unit (SSU)** reviews and approves Project Special Provisions (*CDOT Project Development Manual*, Subsection 2.23.03). The SSU approves Water Quality Specification Project Special Provisions after consulting with the MCPM and LASM regarding conformance with the MS4 Construction Program, including CDPS permits and industry constructability.
- **SWMP Preparer**, or designee, packages all Project Special Provisions, including Water Quality Specification Project Special Provisions, with the project's SWMP.

4.0 Methods/Procedures

The Methods/Procedures for SOP D2 only address Project Special Provisions that modify Water Quality Specifications to ensure that Water Quality Specifications in ESCAN are accurate for the project.

1. The RE, or designee, submits proposed modifications to CDOT's Water Quality Specifications to the SSU for review and acceptance (CDOT Project Development Manual, Subsection 2.23.03).
   a. Proposed modifications to CDOT's Water Quality Specifications may originate from the CDOT Design-Build Project Team, from prospective Design-Build teams during the discovery process before the request for qualifications (RFQ) goes to advertisement, or from the Design-Build Contractor prior to submitting the CDPS-SCP application.

2. The **SSU** consults with the **MCPM**, or designee, to determine whether the proposed modifications to CDOT's Water Quality Specifications are in conformance with the MS4 Construction Program, the CDPS-SCP, and the **LASM**, or designee, for industry standards and constructability.
3. The **SSU** allows or disallows the proposed modifications to CDOT's Water Quality Specifications in writing.
    a. Approval is assumed if the **RE** does not receive a denial, request for additional information or a change request within two weeks of submitting the Project Special Provision to **SSU**.
4. Project documents are updated to include the modified Water Quality Specification following SSU acceptance.
    a. Project documents are not updated if SSU rejects the modified Water Quality Specification.
5. The **MCPM**, or designee, adds the modified Water Quality Specification to ESCAN (*when developed*) as a project citation that will be referenced in findings from Routine Audits (SOP C2 - MS4 Construction Program Routine Audits).

5.0 Documentation and Reporting Requirements

- SSU acceptance of the modified Water Quality Specification.

6.0 MS4 Training Requirements

- Not applicable.

7.0 References to Existing Source Documents

- *CDOT Construction Manual*, Subsection 107.25 Water Quality Control and Sections 208 Erosion Control, 213 Mulching and 216 Soil Retention Covering https://www.codot.gov/business/designsupport/bulletins_manuals/cdot-construction-manual
- CDOT *MS4 Construction Program Description Document* https://www.codot.gov/programs/environmental/water-quality/documents/ms4-program/cdot-ms4-construction-program-program-description-document/view
- CDOT Procedural Directive 513.1 "Construction Project Specifications" https://www.codot.gov/business/designsupport/2011-construction-specifications/2011-Specs/specs-changes-under-consideration/pd-513-1-review/view
- CDOT Procedural Directive 513.2 "Construction Project Standard Plans" http://intranet.dot.state.co.us/resources/policy-procedure/documents/0513-2/view

- CDOT Project Development Manual, Subsection 2.23 Special Provisions https://www.codot.gov/business/designsupport/bulletins_manuals/project-development-manual/section-2-project-development-process/view
- CDOT *Roadway Design Guide*, Chapter 16 Construction Specifications https://www.codot.gov/business/designsupport/bulletins_manuals/roadway-design-guide/dg05-ch-16-specifications.pdf/view
- CDOT *Standard Specifications for Road and Bridge Construction* (current version), Subsection 107.25 Water Quality Control and Sections 208 Erosion Control, 213 Mulching and 216 Soil Retention Covering

  https://www.codot.gov/business/designsupport/cdot-construction-specifications/2017-construction-standard-specs
- Standard Plan M-208-1, Temporary Erosion Control https://www.codot.gov/business/designsupport/standard-plans/2012-m-standards-plans/2012-m-standards-pdfs/10-temproary-erosion-control/m-208-1-temp-erosion-control/at_download/file
- Standard Plan M-216-1, Soil Retention Covering https://www.codot.gov/business/designsupport/standard-plans/2012-m-standards-plans/2012-m-standards-pdfs/m-216-1_soil_retention_covering/m-216-1_soil_retention_covering/at_download/file

8.0 Attachments

- SOP D2, Attachment 1 is the CDOT MS4 Construction Program Project Special Provisions and Details process flowchart.

9.0 SOP D2 Revision History

August 1, 2018

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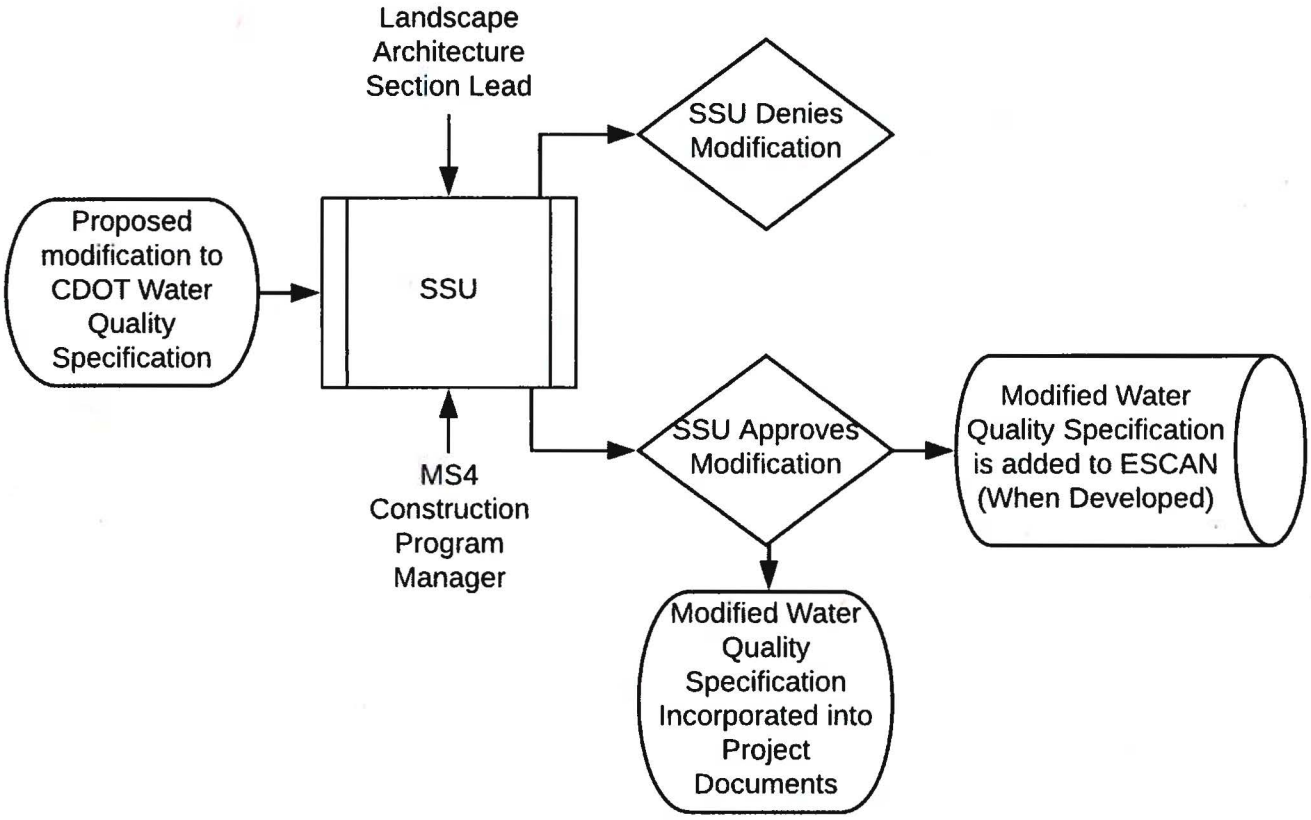
SOP D2, Attachment 1 - CDOT MS4 Construction Program Project Special Provisions and Details Process Flowchart, Design-Build



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CONTROL MEASURES FOR SWMP (STANDARD OPERATING PROCEDURE D3)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP D3

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D4 (Design-Build)

UPDATING SWMP TEMPLATES, SITE MAP STANDARDS AND SWMP TABS (STANDARD OPERATING PROCEDURE D4)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP D4

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D5 (Design-Build)

PROJECT SWMP DESIGN AND REVIEW (STANDARD OPERATING PROCEDURE D5)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

This standard operating procedure (SOP) addresses CDOT review of the Design-Build project's *complete* stormwater management plan (SWMP) before the Contractor submits the application for coverage under the Colorado Discharge Permit System-Stormwater Construction Permit (CDPS-SCP) to the Colorado Department of Health's (CDPHE) Water Quality Control Division. The Contractor must submit the CDPS-SCP application to CDPHE at least ten calendar days prior to the commencement of construction activities.

This SOP is applicable to all CDOT-owned Design-Build projects with a CDPS-SCP. CDOT must keep a copy of the final SWMP reviewed to meet the initial SWMP review requirement and document CDOT's review and acceptance of the project's SWMP (MS4 Permit, Part I.E.1.b.iv.).

The Major/Minor SWMP Modifications SOP (SOP C1) governs the process of revising the project's SWMP after CDOT's acceptance of the initial SWMP.

2.0 Regulatory Criteria

- CDOT MS4 Permit (COS000005), Part I.B.1. Good Engineering, Hydrologic and Pollution Control Practices, page 7
- CDOT MS4 Permit (COS000005), Part I.E.1.a.iv Stormwater Management Plans (SWMPs), page 12
- CDOT MS4 Permit (COS000005), Part I.E.1.a.iv(B) Initial SWMP Review, page 12
- CDOT MS4 Permit (COS000005), Part I.E.1.b. Recordkeeping, page 16
- CDOT MS4 Permit (COS000005), Part I.E.1.c. PDD, page 17
- CDPS-SCP (COR030000), Part I.B - Stormwater Management Plan - General Requirements, pages 6 and 7
- CDPS-SCP (COR030000), Part I.C - Stormwater Management Plan - Contents, pages 7-10
- EPA Audit, 2PM
- EPA Audit, 3PM

3.0 CDOT Roles and Responsibilities

Section 3.0 is an overview of MS4 roles and responsibilities for preparing, reviewing and approving a project's SWMP. Section 4.0 lists the process and methods.

- **Landscape Architecture Section Manager (LASM)**, or designee, is the Training Owner of the SWMP Preparer and SWMP Reviewer certification courses. The LASM, or designee, maintains a database of MS4 Construction Program design criteria for project SWMPs (ESCAN, *when developed*).
- **Region Planning and Environmental Manager (RPEM)** coordinates with the Resident Engineer (RE) to appoint a SWMP Reviewer before the Design-Build project is awarded to a Contractor.
- **Resident Engineer (RE)**, or designee, coordinates with the RPEM to appoint a SWMP Reviewer before the Design-Build project is awarded to a Contractor.
- The Contractor's **SWMP Preparer** holds a valid CDOT SWMP Preparer certification. The SWMP Preparer is responsible for preparing the complete Design-Build project SWMP for review and acceptance by a CDOT-certified SWMP Reviewer before the Contractor submits the CDPS-SCP application.
- **SWMP Reviewer** is a full-time CDOT employee, preferably a Region Environmental staff, who holds a valid CDOT SWMP Reviewer certification. SWMP Reviewers review and approve project SWMPs for CDPS-SCP projects. A SWMP Reviewer may not review a SWMP for which they were the SWMP Preparer.

4.0 Methods/Procedures

1. The **RPEM** and the **RE** coordinate and appoint a **SWMP Reviewer** by the Design-Build project's award date.
    a. The **SWMP Reviewer** must hold a valid CDOT SWMP Reviewer certification (*when developed*).
2. The Contractor's **SWMP Preparer** prepares the Design-Build project's complete SWMP according to Section 3.15 of the *CDOT Project Development Manual*, MS4 Construction Program SWMP Citations (available in the *MS4 Construction Program Development Document*), CDPS-SCP requirements and CDOT's Water Quality Specifications (Design-Build Documents, Book 3).
    a. The Contractor's **SWMP Preparer** must hold a valid CDOT SWMP Preparer certification throughout the design process.
3. The Contractor submits the Design-Build project's complete SWMP to CDOT for review and acceptance before the Contractor submits the CDPS-SCP application to CDPHE.
4. The **SWMP Reviewer** has 14 calendar days to approve or reject the project's SWMP. The **RPEM** and **Contractor** must mutually agree to extend the SWMP review beyond 14 calendar days.

5. The **SWMP Reviewer** communicates acceptance or rejection of the SWMP to the **RPEM**.
6. The **RPEM** informs the **Contractor**, in writing, that the SWMP is accepted or rejected.
    a. The **SWMP Reviewer** has 14 calendar days to re-review a revised SWMP that was previously rejected.
7. Upon approval, the SWMP Reviewer uploads a copy of the final SWMP reviewed to meet the initial SWMP review requirement to ESCAN (when developed) and informs the RPEM that the SWMP has been cleared.
    a. The SWMP Reviewer records their name and SWMP Reviewer certification number in ESCAN (when developed).
    b. The RPEM adds the SWMP Clearance Date to CDOT Form 128.
8. The **Contractor** submits the CDPS-SCP application to CDPHE at least ten calendar days prior to the commencement of construction activities.

5.0 Documentation and Reporting Requirements

- The SWMP Reviewer's name and CDOT certification number must be recorded on the SWMP's cover page and tracked in ESCAN (*when developed*)
- A copy of the final SWMP reviewed to meet the initial SWMP review requirement is stored in ESCAN (*when developed*)

6.0 MS4 Training Requirements

- CDOT SWMP Preparer Certification
- CDOT SWMP Reviewer Training Course (*under development*)

7.0 References to Existing Source Documents

- CDOT *MS4 Construction Program Description Document* https://www.codot.gov/programs/environmental/water-quality/documents/ms4-program/cdot-ms4-construction-program-program-description-document/view
- *CDOT Project Development Manual*, Subsection 2.11 Hydraulic Design (Erosion Control and Stormwater) https://www.codot.gov/business/designsupport/bulletins_manuals/project-development-manual/06-pdm-sect-2-project-development-process.pdf/at_download/file
- *CDOT Project Development Manual*, Subsection 3.15 Stormwater Management Plans (SWMP) https://www.codot.gov/business/designsupport/bulletins_manuals/project-development-manual/07-pdm-sect-3-environmental-final.pdf/view
- *CDOT ProjectWise Reference Manual* https://www.codot.gov/business/designsupport/cadd/projectwise-reference-manual/view

- *CDOT SWMP Preparer/Approver Training Manual (under development)*
- CDOT SWMP Template >1 Acre Impact https://www.codot.gov/programs/environmental/landscape-architecture/swmp-template-1-acre-impact-3/view
- New ProjectWise Project Folder Structure Announcement https://www.codot.gov/business/designsupport/cadd/pw-new-folder-structure/view

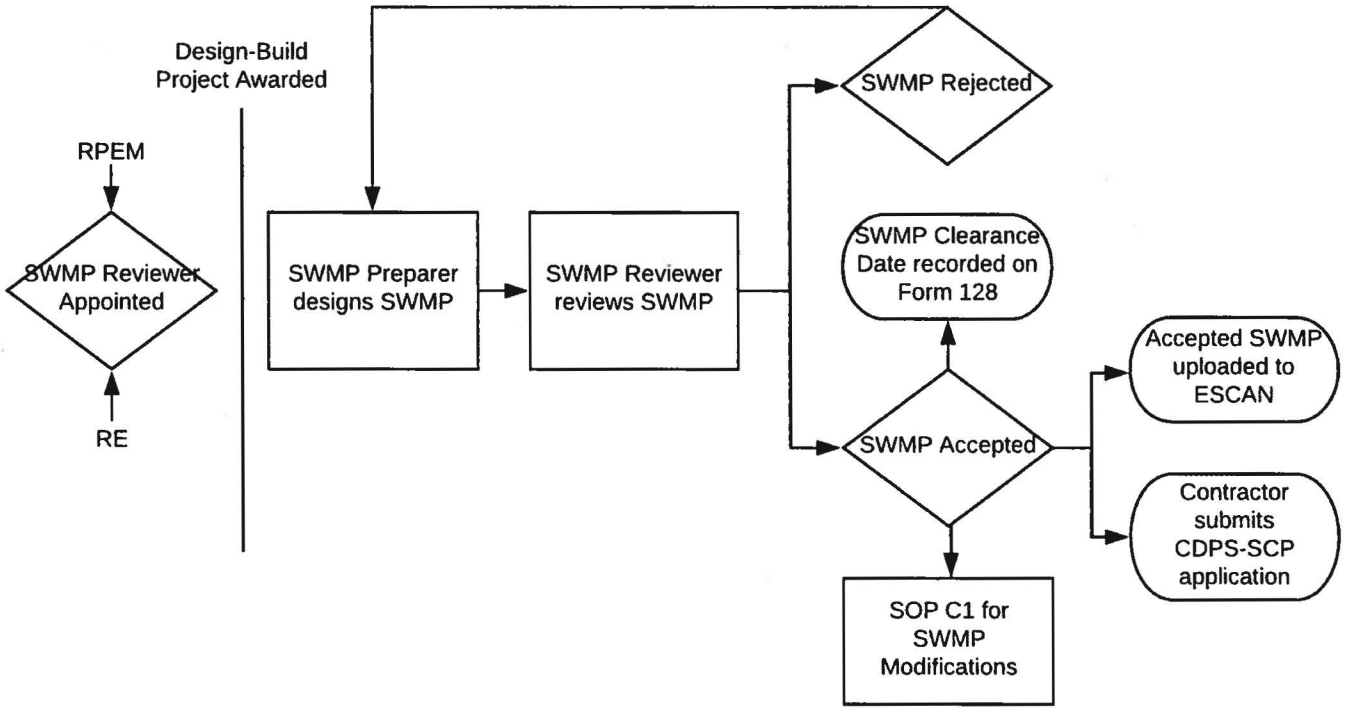
8.0 Attachments

- SOP D5, Attachment 1 for the SWMP and review process flowchart

9.0 SOP D5 Revision History

August 1, 2018

SOP D5, Attachment 1: SWMP Design and Review Process Flowchart



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CHERRY CREEK BASIN (STANDARD OPERATING PROCEDURE D6)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP D6

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3.0 MS4 CONSTRUCTION SOPS

The MS4 Construction Program Task Force approved the following four MS4 construction standard operating procedures (SOPs) for design-bid-build projects:

1. Major/Minor SWMP Modifications during Construction (Standard Operating Procedure C1)
2. Routine Audits and RECATs (Standard Operating Procedure C2)
3. MS4 Regulatory Authority, 208.09 Specification (Standard Operating Procedure C3)
4. Long-term SWMP Retention (Standard Operating Procedure C4).

None of the MS4 Construction SOPs are modified for Design-Build projects.

MS4 construction SOPs C1, C2 and C3 are effective when the Contractor submits the Colorado Discharge Permit System - Stormwater Construction Permit (CDPS-SCP) application to the Colorado Department of Public Health and Environment's (CDPHE) Water Quality Control Division (Division) through termination of the project's CDPS-SCP. SOP C4 ensures that the project's SWMP notebook is accessible by CDOT for three years after CDPS-SCP termination, unless otherwise notified by the Division.

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C1 (Design-Build)

MAJOR/MINOR SWMP MODIFICATIONS DURING CONSTRUCTION (STANDARD OPERATING PROCEDURE C1)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP C1

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C2 (Design-Build)

ROUTINE AUDITS AND RECATS (STANDARD OPERATING PROCEDURE C2)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP C2

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C3 (Design-Build)

MS4 Regulatory Authority, 208.09 Specification (Standard Operating Procedure C3)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP C3

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C4 (Design-Build)

LONG-TERM SWMP RETENTION (STANDARD OPERATING PROCEDURE C4)

Revision Number: 1.0
Date Issued/Revised: 8/1/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP C4

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4.0 MS4 MONITORING PROCEDURES

The MS4 Construction Program Task Force approved the following six MS4 construction standard operating procedures (SOPs) for design-bid-build projects:

1. MS4 Construction Program Trainings (Standard Operating Procedure M1)
2. *MS4 Construction PDD* Updates (Standard Operating Procedure M2)
3. *MS4 Construction Program Manual* Updates (Standard Operating Procedure M3)
4. MS4 Compliance Monitoring (Standard Operating Procedure M4)
5. WQCD Contact/Inquiry (Standard Operating Procedure M5)
6. MS4 Construction Program Third-Party Audit (Standard Operating Procedure M6)

None of the MS4 Construction SOPs are modified for Design-Build projects.

Key staff responsible for implementing the MS4 Monitoring SOPs are the **CDOT/CDPHE Liaison**, the **Water Quality Section Manager (WQSM)**, the **MS4 Construction Program Manager (MCPM)** and the **Landscape Architecture Section Manager (LASM)**. Note that these staff are also evaluated during MS4 Compliance Monitoring (SOP M4) and third-party audits (SOP M6).

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MS4 Construction Program Trainings (Standard Operating Procedure M1)

Revision Number: 1.0
Date Issued/Revised: 8/9/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP M1

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MS4 CONSTRUCTION PDD UPDATES (STANDARD OPERATING PROCEDURE M2)

Revision Number: 1.0
Date Issued/Revised: 8/9/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP M2

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MS4 Construction Program Manual Updates (Standard Operating Procedure M3)

Revision Number: 1.0
Date Issued/Revised: 8/9/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP M3

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MS4 Compliance Monitoring (Standard Operating Procedure M4)

Revision Number: 1.0
Date Issued/Revised: 8/9/2018
PDD Version Number: 1.2

1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP M4

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CDPHE-WQCD CONTACT/INQUIRY (STANDARD OPERATING PROCEDURE M5)

Revision Number: 1.0
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1.0 Overview and MS4 Approach

Refer to Design-bid-build Chapter, SOP M5

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M6 (Design-Build)

MS4 Construction Program Third-Party Audit (Standard Operating Procedure M6)

Revision Number: 1.0
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1.0 Overview and MS4 Approach

Refer to Design-bid-build